

FY 2014 Bound Printed Matter Mail Processing Costs

I. PREFACE

A. Purpose and Content

USPS-FY14-22 documents the development of mail processing costs for Bound Printed Matter. It contains printed and electronic documentation of the spreadsheets and programs used to develop these costs.

B. Predecessor Documents

Docket No. R2006-1, USPS-LR-L-109.
Docket No. ACR2007, USPS-FY07-22.
Docket No. ACR2008, USPS-FY08-22.
Docket No. ACR2009, USPS-FY09-22.
Docket No. ACR2010, USPS-FY10-22.
Docket No. ACR2011, USPS-FY11-22.
Docket No. ACR2012, USPS-FY12-22.
Docket No. ACR2013, USPS-FY13-22.

C. Corresponding Non-Public Document

There is no corresponding non-public document.

D. Methodology

This analysis uses the same methodology as described in Docket No. R2006-1, USPS-LR-L-109. This methodology was also used in Docket No. ACR2007 through ACR2012, and most recently Docket No. ACR2013, USPS-FY13-22.

E. Input/Output

USPS-FY14-22 relies upon mail processing cost inputs as developed in USPS-FY14-26. It also relies upon the 2014 IOCS nonpublic data set in USPS-FY14-NP21 and replicates cost distribution and cost pool assignment methodology in USPS-FY14-7.

The mail processing costs for Bound Printed Matter are used in the parcels cost models in USPS-FY14-15.

II. ORGANIZATION

The main results are presented in two Microsoft Office Excel workbooks: FY14 BPM Costs ASF.xls and FY14 BPM Costs Op07.xls. These workbooks contribute Tables 1 and 2, below, respectively. Data sources are referenced in each spreadsheet in the Microsoft Office Excel workbooks. The programs and workbooks used to estimate these costs are described in the Program Documentation section below.

Table 1 Total Bound Printed Matter Mail Processing Costs by ASF/NonASF and Basic Function Fiscal Year 2014 Volume Variable Costs (\$000) (Piggyback and Premium Pay Factors Applied)										
Office	Cost Pool	Non-ASF				ASF				Grand Total
		Outgoing	Incoming	Transit	Other	Outgoing	Incoming	Transit	Other	
1 MODS	D/BCS	113	141	0	208	0	1	0	3	465
2 MODS	AFSM100	897	7,313	0	4,380	184	21	0	34	12,829
3 MODS	FSS	46	6,283	0	5,188	0	0	0	0	11,517
4 MODS	FSM/1000	0	130	0	39	0	0	0	0	169
5 MODS	MECPARC	0	1	0	2	0	0	0	0	3
6 MODS	APBS OTH	1,084	4,041	0	2,433	8	42	0	47	7,655
7 MODS	APBSPRIO	230	380	0	357	8	658	0	9	1,643
8 MODS	1SACKS_M	56	325	0	174	0	1	0	3	559
9 MODS	1TRAYSRT	73	127	0	150	2	10	0	4	366
10 MODS	MANF	196	672	0	634	1	3	0	6	1,512
11 MODS	MANL	178	530	0	572	1	0	0	8	1,289
12 MODS	MANP	232	879	0	476	0	2	0	4	1,593
13 MODS	PRIORITY	247	400	0	193	2	1	0	1	845
14 MODS	LD15	0	425	0	44	0	0	0	0	469
15 MODS	1CANCEL	407	78	0	617	11	0	0	4	1,117
16 MODS	1DSPATCH	712	629	0	1,008	2	4	0	10	2,365
17 MODS	1FLATPRP	44	229	0	1,753	0	0	0	3	2,031
18 MODS	1MTRPREP	7	0	0	6	0	0	0	0	14
19 MODS	1OPBULK	173	64	0	137	0	0	0	0	373
20 MODS	1OPPREF	392	201	0	508	2	1	0	9	1,113
21 MODS	1OPTRANS	24	166	0	308	0	0	0	6	504
22 MODS	1PLATFRM	1,470	1,342	0	7,697	17	12	0	191	10,728
23 MODS	1POUCHNG	78	208	0	221	199	2	0	10	718
24 MODS	1PRESORT	616	329	0	786	191	0	0	10	1,932
25 MODS	1SACKS_H	46	189	0	155	1	0	0	1	391
26 MODS	1SCAN	308	229	0	864	7	0	0	11	1,418
27 MODS	BUSREPLY	1	0	0	2	0	0	0	0	3
28 MODS	EXPRESS	0	0	0	9	0	0	0	0	9
29 MODS	MAILGRAM	0	0	0	0	0	0	0	0	0
30 MODS	REGISTRY	0	0	0	4	0	0	0	0	4
31 MODS	REWRAP	0	2	0	7	0	0	0	0	9
32 MODS	1EEQMT	19	15	0	360	0	1	0	13	408
33 MODS	1MISC	13	16	0	153	0	0	0	4	186
34 MODS	1SUPPORT	13	18	0	357	1	1	0	9	398
35 MODS	LD41	0	0	0	0	0	0	0	0	0
36 MODS	LD42	9	9	0	159	0	0	0	1	177
37 MODS	LD43	354	16,722	0	4,249	0	74	0	4	21,402
38 MODS	LD44	1	183	0	49	0	0	0	0	234
39 MODS	LD48 EXP	3	1	0	3	0	0	0	0	7
40 MODS	LD48 OTH	385	1,127	0	1,573	0	0	0	0	3,085
41 MODS	LD48_ADM	25	73	0	721	0	0	0	0	819
42 MODS	LD48_SSV	0	3	0	91	0	0	0	1	96
43 MODS	LD49	3	5	0	3,267	0	0	0	0	3,275
44 MODS	LD79	966	9	0	1,042	26	0	0	5	2,048
45 MODS	INTL ISC	30	2	0	26	0	0	0	0	58
46 NDCs	FSS NDC	0	151	0	693	0	0	0	0	844
47 NDCs	Man Pcl NDC	15	289	0	155	0	0	0	0	458
48 NDCs	NMO	79	9	0	20	0	0	0	0	108
49 NDCs	Allied Oth	507	653	0	5,563	0	0	0	0	6,723
50 NDCs	Platform NDC	2,221	2,067	0	17,763	0	0	0	0	22,050
51 NDCs	PSM	2,428	7,411	0	15,492	0	0	0	0	25,331
52 NDCs	APBS NDC	134	1,811	0	2,140	0	0	0	0	4,085
53 NDCs	SSM	17	59	0	352	0	0	0	0	428
54 NDCs	TraySort NDC	46	192	0	502	0	0	0	0	741
55 Non-MODS	Allied	1,688	5,217	0	818	0	0	0	0	7,723
56 Non-MODS	Auto/Mech	0	0	0	3	0	0	0	0	3
57 Non-MODS	Bulk Accept	67	0	0	0	0	0	0	0	67
58 Non-MODS	Bus Reply	0	0	0	278	0	0	0	0	278
59 Non-MODS	CFSCMU	0	0	0	90	0	0	0	0	90
60 Non-MODS	N_PO Box	0	1,115	0	0	0	0	0	0	1,115
61 Non-MODS	N_Express	0	4	0	3	0	0	0	0	7
62 Non-MODS	Manual Flat	187	2,303	0	37	0	0	0	0	2,526
63 Non-MODS	Manual Letter	0	5	0	3	0	0	0	0	8
64 Non-MODS	Manual Parcel	1,101	23,584	0	902	0	0	0	0	25,587
65 Non-MODS	Miscellaneous	59	585	0	2,638	0	0	0	0	3,282
66 Non-MODS	Oth Accounts	0	0	0	2	0	0	0	0	2
67 Non-MODS	Registry	0	0	0	0	0	0	0	0	0
Total		18,001	88,949	0	88,435	663	835	0	411	197,294

Table 2 Total Bound Printed Matter Mail Processing Costs by Operation Fiscal Year 2014 Volume Variable Costs (\$000) (Piggyback and Premium Pay Factors Applied)				
Group	Pool	All Other	OP 07	Total
1 MODS	D/BCS	465	0	465
2 MODS	AFSM100	12,829	0	12,829
3 MODS	FSS	11,517	0	11,517
4 MODS	FSM/1000	169	0	169
5 MODS	MECPARC	3	0	3
6 MODS	SPBS OTH	7,655	0	7,655
7 MODS	SPBSPRIO	1,643	0	1,643
8 MODS	1SACKS_M	559	0	559
9 MODS	1TRAYSRT	366	0	366
10 MODS	MANF	1,512	0	1,512
11 MODS	MANL	1,289	0	1,289
12 MODS	MANP	1,593	0	1,593
13 MODS	PRIORITY	845	0	845
14 MODS	LD15	469	0	469
15 MODS	1CANCEL	1,116	1	1,117
16 MODS	1DSPATCH	2,365	0	2,365
17 MODS	1FLATPRP	2,031	0	2,031
18 MODS	1MTRPREP	14	0	14
19 MODS	1OPBULK	373	0	373
20 MODS	1OPPREF	1,112	1	1,113
21 MODS	1OPTRANS	504	0	504
22 MODS	1PLATFRM			
	Outgoing	1,486	0	1,486
	Incoming	1,354	0	1,354
	Transit	0	0	0
	Other	7,887	1	7,888
	Total Platform	10,727	1	10,728
23 MODS	1POUCHING	718	0	718
24 MODS	1PRESORT	1,927	5	1,932
25 MODS	1SACKS_H	391	0	391
26 MODS	1SCAN	1,418	0	1,418
27 MODS	BUSREPLY	3	0	3
28 MODS	EXPRESS	9	0	9
29 MODS	MAILGRAM	0	0	0
30 MODS	REGISTRY	4	0	4
31 MODS	REWRAP	9	0	9
32 MODS	1EEQMT	408	0	408
33 MODS	1MISC	185	1	186
34 MODS	1SUPPORT	398	0	398
35 MODS	LD41	0	0	0
36 MODS	LD42	176	1	177
37 MODS	LD43	21,402	0	21,402
38 MODS	LD44	234	0	234
39 MODS	LD48 EXP	4	2	7
40 MODS	LD48 OTH	3,069	16	3,085
41 MODS	LD48_ADM	819	0	819
42 MODS	LD48_SSV	96	0	96
43 MODS	LD49	3,274	2	3,275
44 MODS	LD79			
	Outgoing	6	986	992
	Incoming	9	0	9
	Transit	0	0	0
	Other	717	331	1,048
	Total LD79	732	1,316	2,048
45 MODS	INTL ISC	58	0	58
46 NDCs	FSS NDC	844	0	844
47 NDCs	Man Pcl NDC	458	0	458
48 NDCs	NMO	108	0	108
49 NDCs	Allied Oth	6,710	12	6,723
50 NDCs	Platform NDC			
	Outgoing	2,221	0	2,221
	Incoming	2,067	0	2,067
	Transit	0	0	0
	Other	17,749	13	17,763
	Total BMC Pltfrm	22,037	13	22,050
51 NDCs	PSM	25,331	0	25,331
52 NDCs	SPBS NDC	4,085	0	4,085
53 NDCs	SSM	428	0	428
54 NDCs	TraySort NDC	741	0	741
55 Non-MODS	Allied			
	Outgoing	1,688	0	1,688
	Incoming	5,217	0	5,217
	Transit	0	0	0
	Other	818	0	818
	Total Allied	7,723	0	7,723
56 Non-MODS	Auto/Mech	3	0	3
57 Non-MODS	Bulk Accept	0	67	67
58 Non-MODS	Bus Reply	278	0	278
59 Non-MODS	CFSCMU	90	0	90
60 Non-MODS	N_PO Box	1,115	0	1,115
61 Non-MODS	N_Express	7	0	7
62 Non-MODS	Manual Flat	2,526	0	2,526
63 Non-MODS	Manual Letter	8	0	8
64 Non-MODS	Manual Parcel	25,587	0	25,587
65 Non-MODS	Miscellaneous	3,282	0	3,282
66 Non-MODS	Oth Accounts	2	0	2
67 Non-MODS	Registry	0	0	0
Total		195,855	1,439	197,294

III. PROGRAM DOCUMENTATION

A. Computer Hardware and Software

The FORTRAN programs are run on a HP ProLiant DL560 Gen 8 with four Intel Xeon E5-4650 (each with 8 cores @ 2.70GHz) microprocessors and 256 GB of RAM. The operating system on this computer is Red Hat Enterprise Linux Server release 6.6 (Santiago) with the kernel 2.6.32-504.1.3.el6.x86_64. FORTRAN programs are compiled using GFORTRAN from GNU Compiler Collection (GCC) version 4.4.7, which can be downloaded from <http://gcc.gnu.org/fortran>. The manual processing spreadsheet work is performed on PCs running the Windows 7 (64-bit) Professional Service Pack 1 operating system and using Microsoft Office Excel 2013 (64-bit) from the Microsoft Office Professional Edition 2013 (64-bit).

USPS-FY14-22 includes electronic versions of all relevant programs, maps, and data files. The compiler used to run the PC-based FORTRAN programs can be downloaded freely from <http://gcc.gnu.org/wiki/GFortranBinaries>. Download the Windows 64-bit version of GFORTRAN. To compile use the command line: x86_64-pc-mingw32-gfortran.exe -O2 -ffixed-line-length-132 -finit-local-zero -fbounds-check -o {executable name} {program name.f}. The PC-based FORTRAN programs should be run in the same order as the programs are described below.

B. Preparation of the IOCS Data

The following program extracts clerk and mail handler tallies from the 2014 IOCS data set and prepares the tallies for the volume-variable cost distribution for mail processing Bound Printed Matter (BPM) costs for clerks and mail handlers to basic function/ASF/operation category.

Program: **cadoc14_prc.f** – Separates the clerk and mail handler tallies from the entire 2014 IOCS data set, separates the tallies between mail processing and administrative/window service, and assigns a cost pool to each tally using the method described in USPS-FY14-7.

Input: **FY14 IOCS Data** – Text flat file version of the submitted SAS IOCS nonpublic data set (USPS-FY14-NP21)
iocs2014_np.h – Declaration of IOCS tally fields
mods_fin14.prn – List of MODS 1&2 finance numbers used to identify MODS 1&2 offices (USPS-FY14-7)
costpools14.prn – Map of mail processing cost pools

Output: **clk_mh_mp14.dat** – IOCS mail processing tallies
clk_mh_aw14.dat – IOCS administrative and window service tallies

C. Cost Estimates by Basic Function/ASF/Operation Category – Clerks and Mail Handlers, Mail Processing

The following FORTRAN programs replicate the function of the mail processing cost distribution SAS programs documented in USPS-FY14-7. These programs use the cost distribution methodology described in USPS-FY14-7 to estimate mail processing volume-variable costs by subclass, cost pool, shape, and basic function/ASF/operation category. Basic function/ASF/operation categories are combinations of the following groups: auxiliary service facilities (ASFs) versus non-ASFs, operation code 07 (mail acceptance) versus all other operations, and basic function. The results of these programs are exported into Microsoft Office Excel where the estimated costs are used as a distribution key to distribute FY14 CRA Cost Segment 3.1 BPM costs to subclass, shape, and basic function/ASF/operation category.

Program: **mpproc14_bpm.f** – Estimates mail processing costs by activity code, cost pool, and basic function/ASF/operation category

Input: **clk_mh_mp14.dat** – IOCS mail processing tallies
iocs2014_np.h – Declaration of IOCS tally fields
asf.fin.14 – Map of ASF finance numbers
activity14_cra_intl.prn – List of the direct and class specific mixed activity codes
mixclass.intl – List of class specific mixed mail activity codes
mxmail.intl.dat14 – Maps the direct activity codes to their respective class specific mixed mail activity codes
costpools14_ld15.prn – List of mail processing cost pools and cost pool dollars (USPS-FY14-7)

Output: **mp14prc_bpm.data** – Estimated mail processing costs by cost pool, activity code, and basic function/ASF/operation category

Program: **sumclass_bpm.f** – Rolls up the BPM mail processing volume-variable costs, estimated from the program mpproc14_bpm.f

Input: **mp14prc_bpm.data** – Estimated mail processing volume-variable costs by cost pool, activity code, and basic function/ASF/operation category
costpools14_ld15.prn – List of mail processing cost pool
activity14_cra_intl.prn – List of the direct and class specific mixed activity codes
classes_cra14.prn – List of CRA subclasses

Output: **mp14_prc_bpm.csv** – Estimated mail processing costs for Bound Printed Matter by cost pool and basic function/ASF/operation category

Workbook: **FY14 BPM PRC Costs.xls** – Estimated mail processing volume-variable costs for Bound Printed Matter by cost pool and basic function/ASF/operation category

Input: **mp14_prc_bpm.csv** – Output from the program
sumclass_bpm.f
FY14 mail processing volume-variable costs – BPM volume-variable costs by shape for mail processing (USPS-FY14-26)

Workbook: **FY14 BPM Costs Op07.xls** – Summarizes clerk/mail handler mail processing costs by cost pool and operation 07 (platform acceptance) versus all other operations for BPM. Fiscal year piggyback factors and cost ratios are applied to generate BPM costs by cost pool and facility.

Input: **FY14 BPM Costs.xls** – Provides FY14 clerk/mail handler mail processing cost estimates by cost pool and basic function/ASF/operation category for BPM
FY14 Piggyback Factors, Cost Ratios, Volume Ratios, and Reconciliation Factors – USPS-FY14-26
FY14 BPM Cost Segment 3.1 Costs – USPS-FY14-2
FY14 Piggyback Factors by Cost Segment – USPS-FY14-24

Workbook: **FY14 BPM Costs ASF.xls** – Summarizes clerk/mail handler mail processing volume-variable costs by cost pool and auxiliary service facility (ASF) versus non-ASF facilities for BPM. Fiscal year piggyback factors and cost ratios are applied to generate BPM costs by cost pool and facility.

Input: **FY14 BPM Costs.xls** – Provides FY14 clerk/mail handler mail processing volume-variable cost estimates by cost pool and basic function/ASF/operation category for BPM
FY14 Piggyback Factors, Cost Ratios, and Reconciliation Factors – USPS-FY14-26
FY14 BPM Cost Segment 3.1 Costs – USPS-FY14-2
FY14 Piggyback Factors by Cost Segment – USPS-FY14-24